

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 March 2005 (03.03.2005)

PCT

(10) International Publication Number
WO 2005/019626 A1

(51) International Patent Classification⁷: **F02D 13/02**,
21/08, 43/04, 41/26, 1/12

[SE/SE]; Vasagatan 9, Igh 413, S-172 67 Sundbyberg (SE).
AGRELL, Fredrik [SE/SE]; Bettnavägen 46, S-125 43
Älvsjö (SE).

(21) International Application Number:
PCT/SE2004/001211

(74) Agent: **WALDEBÄCK, Hans**; Scania CV AB, Patents7
Södertälje, S-151 87 Södertälje (SE).

(22) International Filing Date: 19 August 2004 (19.08.2004)

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(25) Filing Language: Swedish

(26) Publication Language: English

(30) Priority Data:
0302246-4 20 August 2003 (20.08.2003) SE

(71) Applicant (for all designated States except US): **SCANIA
CV AB (PUBL)** [SE/SE]; S-151 87 Södertälje (SE).

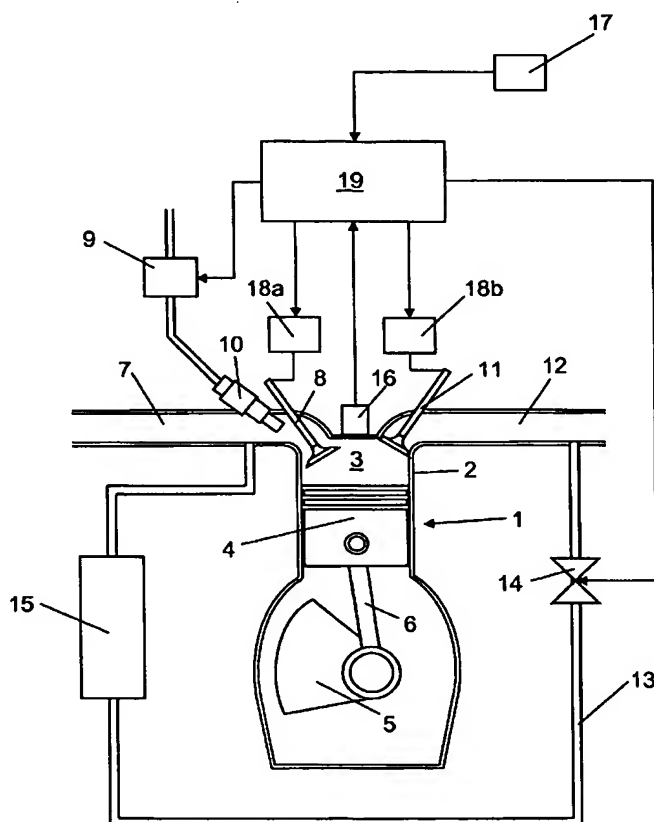
(72) Inventors; and

(75) Inventors/Applicants (for US only): **LINDERYD, Johan**

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: ARRANGEMENT AND METHOD FOR CONTROLLING A COMBUSTION ENGINE



(57) Abstract: The present invention relates to an arrangement and a method for controlling a combustion engine (1), e.g. of the type called HCCI engine. The arrangement comprises a control unit (19) adapted to controlling the self-ignition of the fuel mixture towards an optimum crankshaft angel (cad_{opt}) within a load range (L_{tot}). Said load range (L_{tot}) can be divided into at least two subranges (L_1 , L_{II}) and the control unit (19) is adapted to controlling the self-ignition of the fuel mixture towards an optimum crankshaft angle (cad_{opt}) within a first subrange (L_1) by means of a strategy (I) which entails a variable amount of hot exhaust gases being supplied to or retained in the combustion chamber (3), and within a second subrange (L_{II}) by means of another strategy (II) which entails the effective compression ratio (c) in the cylinder (2) being varied.



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

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Published:

— *with international search report*